

RECEIVED  
CENTRAL FAX CENTER

JUL 06 2007

Amendments to the Claims

Claims 1-28 (canceled).

Claim 29 (currently amended): An integrated circuit comprising:

a semiconductive substrate; and  
a roughened platinum layer over the substrate, the roughened platinum layer  
having a thickness of greater than or equal to about 100 angstroms and a continuous surface comprising columnar platinum pedestals terminating in dome-shaped tops, the columnar platinum pedestals having heights greater than or equal to about one-third of a total thickness of the platinum layer.

Claim 30 (previously presented): The integrated circuit of claim 29 wherein:

the roughened platinum layer is continuous over an area of the substrate, the area of the substrate comprising at least about  $4 \times 10^6$  square angstroms; and  
the platinum pedestals are at least about 300 angstroms tall within the area.

Claim 31 (previously presented): The integrated circuit of claim 30 wherein the platinum layer comprises hemispherical grain platinum.

Claim 32 (previously presented): The integrated circuit of claim 30 wherein the area of the substrate comprises a square.

Claim 33 (canceled).

Claim 34 (currently amended): The integrated circuit of claim ~~33~~ 29 wherein the platinum layer has a thickness of at least about 600 angstroms.

Claim 35 (currently amended): The integrated circuit of claim ~~33~~ 29 wherein the platinum layer has a thickness of greater than or equal to about 400 angstroms.

Claim 36 (canceled).

Claim 37 (currently amended): The integrated circuit of claim ~~33~~ 29 further comprising an adhesion layer between the platinum layer and the substrate, the adhesion layer comprising at least one of titanium nitride, iridium, rhodium, ruthenium, platinum, palladium, osmium, silver, rhodium/platinum alloy, IrO<sub>2</sub>, RuO<sub>2</sub>, RhO<sub>2</sub>, or OsO<sub>2</sub>.

Claims 38 and 39 (canceled).

Claim 40 (previously presented): A capacitor comprising:

- a first capacitor electrode;

- a second capacitor electrode;

- a dielectric layer between the first and second capacitor electrodes; and

- wherein at least one of the first and second capacitor electrodes comprises a roughened platinum layer, the roughened platinum layer having a thickness of from about 400 angstroms to about 1000 angstroms and comprising platinum pedestals that are at least about 300 angstroms tall and terminate in dome-shaped tops.

Claim 41 (original): The capacitor of claim 40 wherein the roughened platinum layer comprises hemispherical grain platinum.

Claim 42 (previously presented): The capacitor of claim 40 wherein the roughened platinum layer is over a surface and is continuous over an area of the surface that is at least about  $4 \times 10^6$  square angstroms.

Claim 43 (original): The capacitor of claim 42 wherein the area comprises a square.

Claim 44 (previously presented): A capacitor comprising:

a first capacitor electrode;

a second capacitor electrode;

a dielectric layer between the first and second capacitor electrodes; and

wherein at least one of the first and second capacitor electrodes comprises a roughened platinum layer, the roughened platinum layer having a continuous surface characterized by columnar platinum pedestals having heights greater than or equal to about one-third of a total thickness of the platinum layer, the platinum pedestals terminating in dome-shaped tops.

Claim 45 (original): The capacitor of claim 44 wherein both capacitor electrodes comprise platinum, but only one of the capacitor electrodes comprises the roughened platinum layer.

Claim 46 (original): The capacitor of claim 44 wherein both capacitor electrodes comprise roughened platinum layers.

Claim 47 (canceled).

Claim 48 (previously presented): The capacitor of claim 44 wherein the platinum pedestals terminate in hemispherical tops.

Claims 49-56 (canceled).